

Book review: *Rossi's Principles of Transfusion Medicine*

Cees T Smit Sibinga

IQM Consulting, Zuidhorn,
the Netherlands

Simon TL, McCullough J, Snyder EL, Solheim BG, Strauss RG, editors. *Rossi's Principles of Transfusion Medicine*. 5th ed. Hoboken (NJ): Wiley-Blackwell; 2016.

Rossi's Principles of Transfusion Medicine was first published in 1991. This 5th edition marks 25 years since then, a remarkable achievement.

The book has been substantially revised and updated, making it even more a patient-oriented publication with challenging contributions on advanced treatment modalities, including gene therapy, tissue engineering, and regenerative medicine. There are six sections and 62 chapters that lead the reader in a simple and logical way through the ever expanding field of transfusion medicine against the background of the developmental history over the past few centuries (Chapter 1). The book clearly demonstrates the current position of transfusion medicine, bridging the bedside with the community. Besides known authors from previous editions, there have been quite a number of younger scientists identified as contributors. Also, the number of non-American authors has increased, giving the book a more international flavor of knowledge and experience, although it still has a dominant, local American taste. The layout stimulates reading and learning, with short paragraphs and clear language. Unfortunately the setup of tables is not really consistently done, through and within chapters. Additionally, some of the more old fashioned and traditional terminologies have not yet been changed, eg, the aggressive word "recruitment" instead of "motivation," expressing the essence of creation of awareness.

Section I (Chapters 2–7) sets the scene by discussing contemporary issues in donation and transfusion starting with patient blood management, including the vigilance aspect of transfusion medicine, and the final chapter discusses a global perspective on ensuring blood and blood product safety and availability, which has been written with a major emphasis on the US, although other international players in the field are mentioned. The impressive series of World Health Assembly Resolutions on global blood safety and availability addressing governance authorities worldwide as well as the excellent World Health Organization teaching material in transfusion medicine apparently has escaped the notice of the authors. The chapter on donor adverse events only highlights adverse events postdonation and does not discuss the often unpleasant events that may happen during donation (such as hyperventilation).

Section II (Chapters 8–31) discusses in four parts (red cells, platelets, white blood cells, and plasma) the state of the art of blood components and derivatives currently

Correspondence: Cees T Smit Sibinga
IQM Consulting, Zuidhorn,
the Netherlands
Email c.sibinga@planet.nl

available for supportive hemotherapy. The advances in recombinant technology are described in an elegant and understandable way. In the chapter on inherited bleeding disorders no attention has been given to the importance of strategies for the treatment of “previously untreated patients” or PUPs, particularly in young infants with hemophilia.

Section III (Chapters 32–42) combines apheresis for therapeutic reasons with transplantation and “new therapies” such as adoptive immunotherapy, tissue engineering, and regenerative medicine. The chapter on apheresis principles lists the currently available instrumentation for donor apheresis as well as for therapeutic apheresis and selected procedures. These are discussed in a more in-depth and detailed manner in the chapter on therapeutic apheresis. The section then provides three chapters on hematopoietic growth factors, stem cells, and transplantation, followed by five chapters on more advanced and fascinating clinical approaches (new therapies) like gene therapy applications, adoptive immunotherapy, engineering of tissue, and regenerative medicine.

Section IV (Chapters 43–50) deals with specialized clinical practice in three parts: obstetrics and pediatrics, surgery and trauma, and oncology. All chapters passionately convey the current clinical patient blood management approach with a dominance of restrictive prescribing of what is needed. The chapter on supportive transfusion therapy in trauma and burn patients emphasizes the change in paradigms from focusing on damage control resuscitation and adequate strategies to

first stopping the bleed based on a better understanding of the presenting pathophysiology and essences for survival of the patient. However, the principle of perfusion of the tissues to allow access for oxygen to be delivered is not clearly mentioned.

Section V (Chapters 51–62) discusses in two parts the state of the art in infectious hazards and others, eg, hemolytic reactions, TRALI, transfusion-related iron overload (thalassemia), and the current ideas about the immunomodulatory and proinflammatory effects of allogeneic blood transfusion.

The book has a companion website (www.wiley.com/go/simon/transfusion) with the complete references per chapter, where authors have concluded their chapters with a shortlist of the most essential references and reviews. The book is not only available as a hard copy but also in an electronic version.

Those experienced and interested in the field of transfusion medicine as well as those who want to explore the field are urged to use this comprehensive, patient-oriented book on the principles of transfusion medicine for the continued development and improvement of their practices, including the teaching and mentoring of students and learners. This jubilee edition brings the reader right in the middle of this exiting, but still young and rapidly expanding, field of health sciences – transfusion medicine.

Disclosure

The author reports no conflicts of interest in this work.

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